# **Communicable Disease Epidemiology and Immunization Section**

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#### December 21, 2009

INFLUENZA SITUATION REPORT for CDC Week 50 (ending 12/19/09)

Please note that given the recent decline in influenza activity, only one situation report will be prepared per week until further notice.

#### Snapshot (updated 12/21/09):

- Emergency department (ED) visits for influenza like illness (ILI) held steady during week 50 after decreasing for five consecutive weeks.
- Hospital admissions for laboratory-confirmed influenza have been decreasing for the past several weeks.
- No influenza deaths occurred in King County residents during week 50.
- The percentage of specimens testing positive for influenza from our outpatient surveillance system decreased from late October through week 48, but increased slightly from week 48 to week 49. Data for week 50 are not yet available.
- The percentage of rapid antigen tests positive for influenza decreased from late October through week 49, but increased from week 49 to week 50.
- Twelve long-term care facilities have reported cases of influenza like illness in their facilities since mid-October.
- School absenteeism has been low and stable for the past several weeks.

For information on current surveillance and testing guidelines for 2009 H1N1 influenza, see: <a href="http://www.kingcounty.gov/healthservices/health/preparedness/pandemicflu/swineflu/providers.aspx">http://www.kingcounty.gov/healthservices/health/preparedness/pandemicflu/swineflu/providers.aspx</a>.

## Case counts, 2009-2010 flu season (updated 12/14/09).

## 2009-2010 Influenza Season (starting October 5<sup>th</sup>):

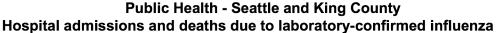
Lab-confirmed 2009 Influenza A H1N1 Hospitalizations:	256
Lab-confirmed 2009 Influenza A H1N1 Deaths:	16

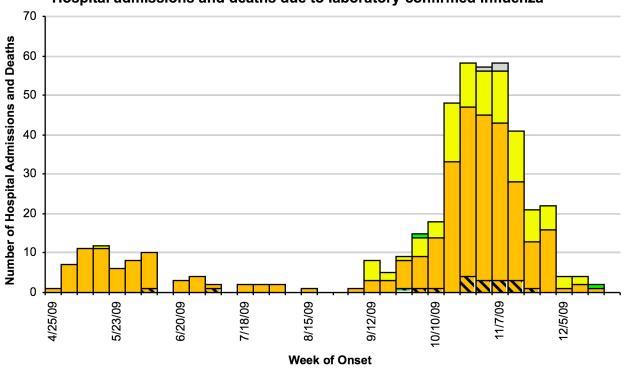
Lab-confirmed Influenza Hospitalizations, not H1N1 or not tested for H1N1: 94
Lab-confirmed Influenza Deaths, not H1N1 or not tested for H1N1: 0

## 2008-2009 Influenza Season (through October 4<sup>th</sup>):

Lab-confirmed 2009 Influenza A H1N1 Hospitalizations: 82
Lab-confirmed 2009 Influenza A H1N1 Deaths: 3

Lab-confirmed Influenza Hospitalizations, not H1N1 or not tested for H1N1: 12 Lab-confirmed Influenza Deaths, not H1N1 or not tested for H1N1: 1

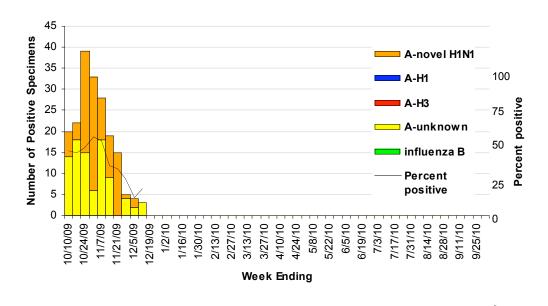




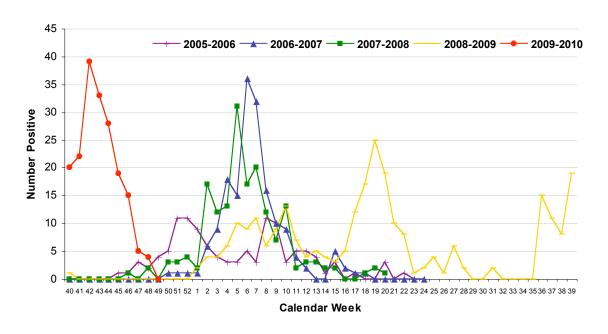
- Lab-confirmed 2009 Influenza A H1N1 Hospitalizations
- Lab-confirmed Influenza A Hospitalizations, Subtype Unknown
- Lab-confirmed Influenza B Hospitalizations
- Lab-confirmed Unspecified Positive Influenza Hospitalizations
- Lab-confirmed Influenza Deaths

Sentinel Provider Surveillance through the Public Health Laboratory (updated 12/21/09): Data for week 50 are not yet available. During week 49, 14 specimens were submitted by sentinel providers for respiratory virus testing, of which 3 were positive for influenza A (type unspecified). During week 48, 28 specimens were submitted, of which 2 were positive for influenza A (type unspecified) and 2 were positive for 2009 H1N1. The percentage of specimens testing positive for flu decreased from the end of October through week 48, though the percentage increased from week 48 (14.3%) to week 49 (21.4%). All flu isolates that have been subtyped have been the 2009 H1N1 strain. To compare the current flu season with previous years, see graphs below.

Public Health - Seattle and King County Sentinel Provider Influenza Surveillance Laboratory Confirmed Isolates

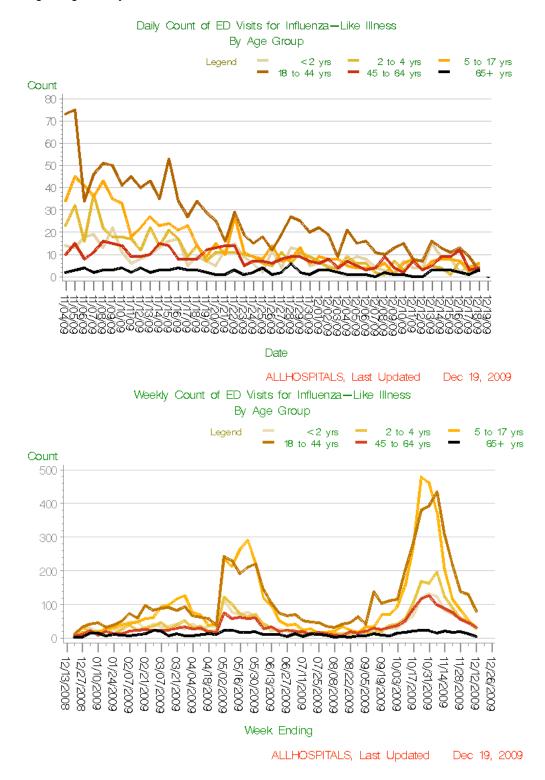


Public Health - Seattle and King County Sentinel Provider Influenza Surveillance Influenza A by Season

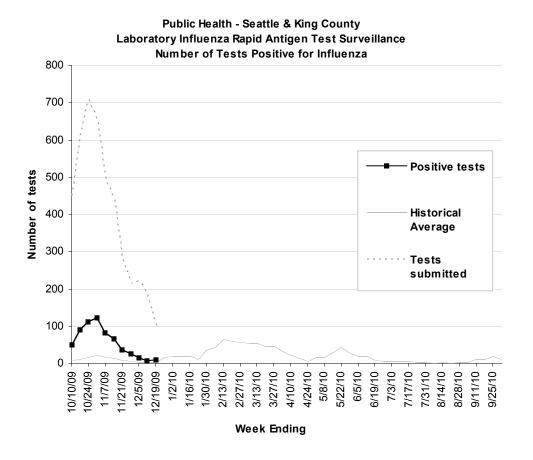


#### Syndromic Surveillance (updated 12/21/09):

The proportion of Emergency Department (ED) visits for influenza like illness (ILI) held steady during week 50 after declining for 5 consecutive weeks. The volume of ED ILI visits is currently highest among adults ages 18-44 years. The percent of ED visits for ILI out of the total number of ED visits remains highest among the pediatric age groups and is equivalent to levels observed at this time last year, as well as levels observed just before the spring H1N1 outbreak started. ED admissions for ILI increased through September and October, but have been decreasing since the start of November. The weekly count of ED admissions for pneumonia was on a downward trend from the peak in March 2009 through the end of September 2009, with increasing counts beginning in early October 2009.



Rapid Antigen Surveillance (updated 12/21/09): During week 50, 7 of 100 (7%) rapid antigen tests reported by 4 hospital laboratories were positive for influenza, which is in the same range as the average proportion observed this time of year. Six of 182 (3.3%) rapid antigen tests reported by hospital laboratories were positive for influenza in week 49. Note that rapid antigen tests are only 10-70% sensitive in detecting 2009 H1N1 influenza. For information on respiratory virus detections conducted at University of Washington's Clinical Virology Lab, see: <a href="http://depts.washington.edu/rspvirus">http://depts.washington.edu/rspvirus</a>

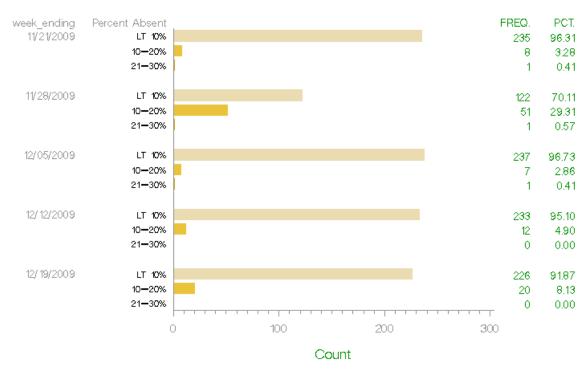


**P & I (Pneumonia and Influenza) Deaths (updated 12/21/09):** 4.8% of deaths reported during week 50 were attributed to pneumonia and influenza (national threshold not yet available). During week 49, 6.4% of deaths were attributed to pneumonia and influenza, below the national threshold of 7.2%. At the peak of flu season, the national epidemic threshold typically ranges from 7.5 - 8.0%.

**Long-term Care Facilities (updated 12/21/09):** Public Health has received reports of ILI from twelve long-term care facilities since mid-October. In several instances, illness was limited to one resident, or to staff who did not have patient contact. Three facilities were recommended to initiate antiviral prophylaxis to limit further transmission among residents and staff.

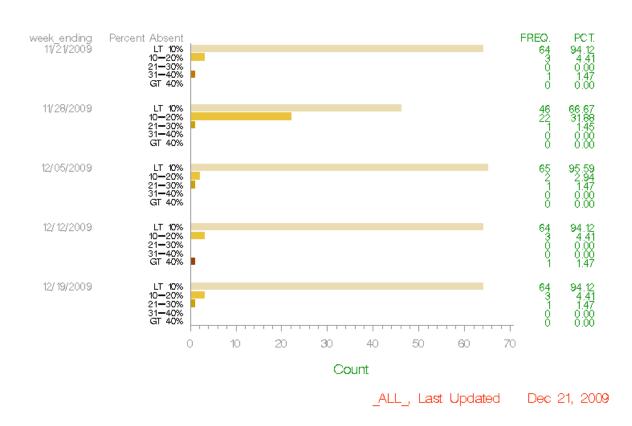
**School Absenteeism (updated 12/21/09):** Eighteen of 19 King County school districts are reporting absenteeism through our automated system. Historical data allowing examination of trends over time are only currently available for three districts. Please note that many schools were not in session during the week ending 11/28/09, and so those data should be interpreted with caution. School absenteeism has been fairly low in recent weeks, with the majority of schools reporting <10% of students absent.

#### Distribution of Absenteeism by Grade Level Elementary Schools

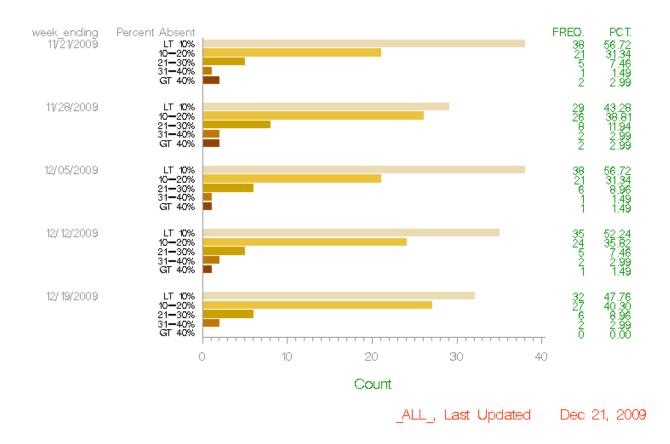


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#### Distribution of Absenteeism by Grade Level Middle Schools



## Distribution of Absenteeism by Grade Level High Schools



#### **Beyond King County**

**United States (updated 12/21/09):** During week 49 (December 6-December 12, 2009), influenza activity continued to decrease in the US. The synopsis for week 50 is not yet available. The synopsis below reflects data from week 49.

- 391 (6.9%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza.
- Over 99% of all subtyped influenza A viruses being reported to CDC were 2009 influenza A (H1N1)
  viruses
- The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold for the eleventh consecutive week.
- Nine influenza-associated pediatric deaths were reported. Eight of these deaths were associated with 2009 influenza A (H1N1) virus infection, and one was associated with an influenza A virus for which the subtype was undetermined.
- The proportion of outpatient visits for influenza-like illness (ILI) was above the national baseline. Five of the ten regions reported ILI at or above region-specific baseline levels. Regions 3, 6, 7, 8 and 10 reported ILI below the region specific baseline; Washington state is part of region 10.
- Eleven states reported geographically widespread influenza activity, 20 states reported regional
  influenza activity, the District of Columbia, Puerto Rico and eleven states reported local influenza
  activity, the U.S. Virgin Islands and eight states reported sporadic influenza activity, and Guam reported
  no influenza activity.

For more on nationwide flu activity, visit the following site: <a href="http://www.cdc.gov/flu/weekly/">http://www.cdc.gov/flu/weekly/</a>

**Washington State (updated 12/21/09):** During week 49 (December 6-December 12, 2009), the geographic distribution of influenza like illness (ILI) was regional, meaning that ILI activity was elevated in two or more but less than half the regions in Washington state. The synopsis for week 50 is not yet available. The synopsis below reflects data from week 49.

- From September 19-December 12, the Department of Health (DOH) received reports of 1323 hospitalized and 65 fatal cases of laboratory-confirmed influenza.
- During week 49, 1 fatal and 27 hospitalized laboratory-confirmed influenza cases were reported to DOH. Of these 28 hospitalized and fatal cases, 4 reside east and 24 reside west of the Cascade Mountains.
- Almost all circulating influenza viruses in Washington are 2009 H1N1 viruses.
- Overall, influenza activity is decreasing in Washington.

For more information on statewide flu activity, visit the following site: http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.pdf.